

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
13 May 2004 (13.05.2004)

PCT

(10) International Publication Number
WO 2004/039290 A1

(51) International Patent Classification: A61F 2/06,
A61B 17/22

(21) International Application Number:
PCT/GB2003/004692

(22) International Filing Date: 31 October 2003 (31.10.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2025427.4 1 November 2002 (01.11.2002) GB

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant and

(72) Inventor: BAIG, Mirza, Kamran [GB/GB]; "The Laurels", 588 Adams Hill, Nottingham, Nottinghamshire NG7 2GZ (GB).

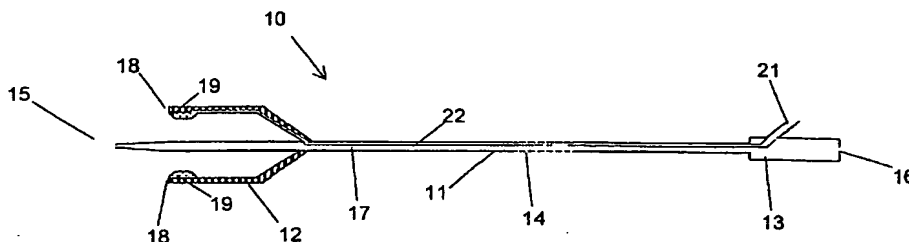
(74) Agents: WALDER, Jeremy, Thomas et al.; Sanderson & Co., 34 East Stockwell Street, Colchester, Essex CO1 1ST (GB).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: RETRIEVAL DEVICE



(57) Abstract: A device (10) for retrieval of a foreign body, such as an undeployed stent (33) from a vessel (30) of a patient, has a central shaft (11) for receiving a guidewire (32) therein. A balloon support means (12) extends from the central shaft (11) and has a free end (18) carrying an inflatable balloon means (19). The inflatable balloon means (19) is arranged to expand inwardly towards the central shaft (11) on inflation, so as in use to bear against the outer circumference of the stent (33) and hold the stent (33) against the central shaft (11). The combined stent (33) and device (10) can then be withdrawn from the vessel (30).

WO 2004/039290 A1

INTERNATIONAL SEARCH REPORT

PCT/GB 03/04692

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61F2/06 A61B17/22

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61F A61B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 868 753 A (SCHATZ RICHARD A) 9 February 1999 (1999-02-09) column 4, line 10 - line 65; figures 5,10	1-15
X	US 6 027 509 A (REN BROOKE O ET AL) 22 February 2000 (2000-02-22) column 4, line 40 - column 5, line 40; figure 2	1-3
A	EP 0 364 420 A (MEDINVENT SA) 18 April 1990 (1990-04-18) abstract; figures	1

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *A* document member of the same patent family

Date of the actual completion of the international search

20 February 2004

Date of mailing of the international search report

01/03/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Ehrsam, F

INTERNATIONAL SEARCH REPORT

PCT/GB 03/04692

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 5868753	A	09-02-1999	WO	9717914 A1	22-05-1997
			US	5785715 A	28-07-1998
			US	6027509 A	22-02-2000
US 6027509	A	22-02-2000	WO	9717914 A1	22-05-1997
			US	5868753 A	09-02-1999
			US	5785715 A	28-07-1998
EP 0364420	A	18-04-1990	AT	82145 T	15-11-1992
			DE	68903466 D1	17-12-1992
			DE	68903466 T2	03-06-1993
			EP	0364420 A1	18-04-1990
			ES	2035645 T3	16-04-1993
			JP	2189145 A	25-07-1990
			JP	2858461 B2	17-02-1999
			US	4990151 A	05-02-1991